

What is claimed is:

1. A light source apparatus comprising:

a semiconductor laser,

laser driving means for making said semiconductor laser emit laser light, and

a light emitting unit on which the laser light emitted from said semiconductor laser can be incident and in which a gas that excites an emission of white light in accordance with an irradiation of the laser light having required energy or more is sealed to irradiate said white light to the outside as a light source.

2. An image display apparatus comprising a light source unit and an image display unit where light projected from the light source unit enters as a light source to performs an image display, wherein

said light source unit includes:

a semiconductor laser,

laser driving means for making said semiconductor laser emit laser light, and

a light emitting unit on which the laser light emitted from said semiconductor laser can be incident and in which a gas that excites an emission of white light in accordance with an irradiation of the laser light having required energy or more is sealed to irradiate said white light to the outside as a light source; and

said image display unit includes:

monochromatic light generating means for generating

monochromatic light of a required color from said incident white light as the light source, and

image light generating means for generating visually recognizable image light from the monochromatic light generated by said monochromatic light generating means.

3. The image display apparatus according to claim 2, wherein

said monochromatic light generating means comprises a diffraction grating which reflects and projects variable monochromatic light in accordance with an incidence angle of light.

4. The image display apparatus according to claim 2, wherein

said image light generating means comprises at least a screen and

lens means which has a required focal length so that the light irradiated on said screen from said light source unit through said image light generating means has a predetermined spot size and which is provided at a required position.

5. The image display apparatus according to claim 4, wherein

said image light generating means further comprises:

horizontal scanning means for performing a horizontal scan with respect to the light irradiated on said screen and

vertical scanning means for performing a vertical

scan with respect to the light irradiated on said screen.